

## Earth Materials

### 1-4 The student will demonstrate an understanding of the properties of Earth materials. (Earth Science)

#### 1-4.3 Compare soil samples by sorting them according to properties (including color, texture, and the capacity to nourish growing plants.

**Taxonomy level:** 2.6-A Remember Factual Knowledge

**Previous/Future knowledge:** This is a foundational concept that students will develop further in future grades. In kindergarten (K-5.1), texture was defined as the way something feels to the touch. In 3<sup>rd</sup> grade (3-3.1), students will classify rocks as sedimentary, metamorphic, or igneous and will identify the components of soil.

**It is essential for students to** know that different soils have different properties. Soils can be sorted by color, texture, and the capacity to nourish growing plants.

#### *Color*

- Topsoil is usually very dark.
- Other soils can come in many different colors depending on the types of rocks that make up the soil.

#### *Texture*

- Soils have different textures.
- For example, sandy soil feels rough and gritty. –

#### *Capacity to nourish growing plants*

- The ability for soil to grow plants depends on how much water it will hold and the types of nutrients in it.
- For example, topsoil holds enough water and contains the proper nutrients for certain plants to grow.

**It is not essential for students to** go beyond making a comparison of soils using the properties mentioned above.

#### **Assessment Guidelines:**

The objective of this indicator is to *compare* soil samples according to their properties; therefore, the primary focus of assessment should be to detect similarities or differences between different types of soil. However, appropriate assessments should also require students to *classify* different soil samples by their color, texture, or capacity to grow plants.